



## Rain, temperature, and child-adolescent height among Native Amazonians in Bolivia

**Author(s):** Godoy R, Goodman E, Reyes-Garcia V, Eisenberg DT, Leonard WR, Huanca T, McDade TW, Tanner S, Jha N, Taps Bolivian Study T  
**Year:** 2008  
**Journal:** Annals of Human Biology. 35 (3): 276-293

### Abstract:

**BACKGROUND:** Global climate change and recent studies on early-life origins of well-being suggest that climate events early in life might affect health later in life. **AIM:** The study tested hypotheses about the association between the level and variability of rain and temperature early in life on the height of children and adolescents in a foraging-farming society of native Amazonians in Bolivia (Tsimane'). **SUBJECT and METHods:** Measurements were taken for 525 children aged 2-12 and 218 adolescents aged 13-23 in 13 villages in 2005. Log of standing height was regressed on mean annual level and mean intra-annual monthly coefficient of variation (CV) of rain and mean annual level of temperature during gestation, birth year, and ages 2-4. Controls include age, quinquennium and season of birth, parent's attributes, and dummy variables for surveyors and villages. **RESULTS:** Climate variables were only related with the height of boys age 2-12. The level and CV of rain during birth year and the CV of rain and level of temperature during ages 2-4 were associated with taller stature. There were no secular changes in temperature (1973-2005) or rain (1943-2005). **CONCLUSION:** The height of young females and males is well protected from climate events, but protection works less well for boys ages 2-12.

**Source:** <http://dx.doi.org/10.1080/03014460801968540>

### Resource Description

#### Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

#### Communication Audience:

audience to whom the resource is directed

Researcher

#### Exposure :

weather or climate related pathway by which climate change affects health

Precipitation, Temperature

# Climate Change and Human Health Literature Portal

## **Geographic Feature:**

resource focuses on specific type of geography

Tropical

## **Geographic Location:**

resource focuses on specific location

Non-United States

**Non-United States:** Central/South America

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Developmental Effect

**Developmental Effect:** Other Functional Deficit

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

**Population of Concern:** A focus of content

## **Population of Concern:**

populations at particular risk or vulnerability to climate change impacts

Children, Low Socioeconomic Status, Racial/Ethnic Subgroup

**Other Racial/Ethnic Subgroup:** Native Amazonians

## **Resource Type:**

format or standard characteristic of resource

Research Article

## **Resilience:**

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

## **Timescale:**

time period studied

Time Scale Unspecified

## **Vulnerability/Impact Assessment:**

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content

